Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) A two-dimensional photonic crystal slab having a three-dimensional local structure, characterized by that it comprises:

a) a slab-shaped body;

b) a plurality of areas having a refractive index different from that of the body, which are periodically arranged in the body; and

c) a refractive index member mounted on the surface of the body.

2. (Original) The two-dimensional photonic crystal slab having a three-dimensional local structure according to claim 1, characterized in that it comprises a waveguide formed by providing a linear defect of the modified refractive index areas in proximity to the refractive index member.

3. (Currently Amended) The two-dimensional photonic crystal slab having a three-dimensional local structure according to claim 1 ~~or 2~~, characterized in that two or more pieces of the refractive index members differing in material, shape or size are mounted on the body.

4. (Currently Amended) The two-dimensional photonic crystal slab having a three-dimensional local structure according to ~~one of claims 1-3~~ claim 1, characterized in that a point-like defect of the modified refractive index areas are provided within the body and a refractive index member is additionally mounted at the position of the point-like defect.

5. (Original) The two-dimensional photonic crystal slab having a three-dimensional local structure according to claim 4, characterized in that a plurality of point-like defects of the modified refractive index areas having different resonant wavelengths are provided within the body, and a plurality of the refractive index members identical in material, shape and size are arranged on a surface of the body at positions of the point-like defects.

6. (Currently Amended) The two-dimensional photonic crystal slab having a three-dimensional local structure according to ~~one of claims 1-5~~ claim 1, characterized in that the refractive index members are mounted on both sides of the body.

7. (Original) The two-dimensional photonic crystal slab having a three-dimensional local structure according to claim 6, characterized in that the refractive index members are mounted at the same position on both sides of the body.

8. (Original) The two-dimensional photonic crystal slab having a three-dimensional local structure according to claim 7, characterized in that identical refractive index members are mounted at the same position on both sides of the body.

9. (Currently Amended) The two-dimensional photonic crystal slab having a three-dimensional local structure according to ~~one of claims 1-8~~ claim 1, characterized in that it is provided with a point-like defect of the modified index areas asymmetrical between front and back sides.

10. (Currently Amended) The two-dimensional photonic crystal slab having a three-dimensional local structure according to ~~one of claims 1-9~~ claim 1, characterized in that the refractive index member is made of the same material as that of the body.

11. (Currently Amended) The two-dimensional photonic crystal slab having a three-dimensional local structure according to ~~one of claims 1-9~~ claim 1, characterized in that the refractive index member is made of a material whose refractive index changes when the material receives an external operation.

12. (Currently Amended) The two-dimensional photonic crystal slab having a three-dimensional local structure according to ~~one of claims 1-11~~ claim 1, characterized in that the refractive index member is a cylinder whose top is concave or convex.

13. (Original) A method of manufacturing a two-dimensional photonic crystal slab having a three-dimensional local structure, characterized by that it comprises a process for creating a refractive index member in which a gas material used for creating a refractive index member is introduced onto a two-dimensional photonic crystal and a focused ion beam is irradiated onto the crystal to deposit the refractive index member.

14. (Original) A method of manufacturing a two-dimensional photonic crystal slab having a three-dimensional local structure, characterized by that it comprises a process for creating a refractive index member in which a refractive index member beforehand is mounted onto the two-dimensional photonic crystal with a nanomanipulator.